

THE DIFFERENTIATION OF TICKS OF THE GENUS HYALOMMA IN PALESTINE.

by

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SUMMARY

Diagnosis of *Hyalomma* sp. depended mainly on distinction of fine shades of colour in the legs and surface markings. This method is so difficult and unsatisfactory that Delpy (1936) has doubted the possibility of distinguishing most species named in the literature. Breeding from individual females has proved considerable variation in the offspring with respect to the colour of the legs and the shape of the parma in the male.

In view of these difficulties and the importance of the genus *Hyalomma* for the transmission of *Theileria annulata*, we examined Palestine ticks and suggest the following characters for specific diagnosis:

1) The cuticle near the stigma. In some species e.g. *H. schulzei* and *H. impressum* the cuticle in the vicinity of the stigma is densely pilose but not in others. The stigma of the male in *H. schulzei* approaches the female type.

2) The female genital aperture is of the greatest aid in diagnosis since it is not subject to variations.

3) The number of tunnels in the anterior border of the scutum in the male and female. This number varies within limits but is nevertheless useful.

4) The dorsal porosa in the female. This varies in shape, size and number of sensory elements particularly in *H. savignyi* but in most specimens of *H. detritum* it is characteristically elliptical.

5) In the male *H. dromedarii* the subanal plates are external to the anal ones.

6) Because of its similarity to *H. mauritanicum*, *H. detritum* is suspected of being the vector of *Theileriasis* in Palestine. Further research will be devoted to this problem.

KEY TO FEMALE HYALOMMA IN PALESTINE

Females:

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|---|---------------------|
| 1) Cuticle near stigma pilose | 2 |
| Cuticle near stigma not markedly pilose | 3 |
| 2) Cuticle near stigma densely pilose | <i>H. schulzei</i> |
| Less densely pilose | <i>H. impressum</i> |
| 3) Anterior part of genital aperture shallow | 4 |
| Anterior part of genital aperture deeply convex posteriorly | 5 |

- | | |
|---|---------------|
| 4) Anterior part of genital aperture convex posteriorly | H. savignyi |
| Anterior part of genital aperture almost flat | H. marginatum |
| 5) Anterior part of genital aperture cup shaped | H. detritum |
| Anterior part of genital aperture narrow with sloping sides | H. dromedarii |

Males:

- | | |
|--|---------------|
| 1) Cuticle round periphery of stigma pilose | 2 |
| Cuticle round periphery of stigma not pilose | 3 |
| 2) Stigma approaching feminine type | H. schulzei |
| Stigma comma-shaped | H. impressum |
| 3) Parma pigmented | H. marginatum |
| Parma not pigmented | 4 |
| 4) Subanal plates external to anal plates | H. dromedarii |
| Subanal plates under the anal plates | 5 |
| 5) Legs with longitudinal yellow band, palps narrow and long. | H. detritum |
| Legs yellowish without longitudinal band, palps longer than in H. detritum | H. savignyi |

RESPIRATORY DISEASES OF POULTRY IN PALESTINE CAUSED BY FILTRABLE VIRUSES.

by

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SUMMARY AND CONCLUSIONS

Investigation on respiratory diseases of poultry in Palestine was started in 1939/1940. The first disease to be investigated appeared in baby chicks and bore a close resemblance to Infectious Bronchitis. Since then 2 other diseases, not identical with each other nor with the disease in baby chicks were investigated and form the subject of this report. The first part of the report deals with a chronic infectious respiratory disease and the second with an acute respiratory disease identical with Infectious Laryngo Tracheitis.

1. A CHRONIC INFECTIOUS RESPIRATORY DISEASE

a. A chronic infectious respiratory disease in pullets and adult hens is described.

b. The causative agent was found to be a filtrable virus.